WHAT IS CLAIMED IS:

1. A drive circuit for driving a display unit comprising:

a gray-scale level voltage generator for generating a plurality of gray-scale level voltages, said gray-scale voltages corresponding to magnitudes of possible video data in one-to-one correspondence in a non-linear region of characteristic of liquid crystal transmittance and corresponding to magnitudes of possible video data in one-to-n correspondence in a linear region of characteristic of liquid crystal transmittance where n is an integer larger than one;

a gray-scale voltage selector block for responding to input video data to select one of said gray-scale level voltages;

a judgement section for judging whether a magnitude of an input video data resides within the non-linear region or the linear region to output a judgement signal indicating the non-linear region or the linear region; and

an output circuit for responding to said judgement signal to output said one of said gray-scale level voltages selected by said gray-scale voltage selector block when said judgement signal indicates the non-linear region and output one of said gray-scale voltages or an intermediate voltage when said judgement signal indicates the linear region, the intermediate voltage residing between two of adjacent gray-scale voltages.

2. The drive circuit as defined in claim 1, wherein given n is two.

3. The drive circuit as defined in claim 1, wherein said output circuit includes a modified voltage follower for generating one of said gray-scale voltages or an adjacent intermediate voltage, said modified voltage follower being controlled to equalize the input and output thereof or to differentiate the input and the output thereof by a specified voltage.

4. The drive circuit as defined in claim 1, wherein said judgement circuit includes a coincidence circuit for judging whether or not a plurality of significant bits of the video signal coincides.

5. The drive circuit as defined in claim 1, wherein given n is four.

6. The drive circuit as defined in claim 5, wherein said output circuit includes an interpolation circuit for generating a plurality of intermediate voltages between adjacent two of said gray-scale voltages.

7. The drive circuit as defined in claim 6, wherein said interpolation circuit includes a resistor string.

8. The drive circuit as defined in claim 5, wherein said judgement circuit includes a coincidence circuit for judging whether or not a plurality of significant bits of the video signal coincide with one

another.